

**REMARKS**

**I. Status of the Claims**

Claims 1-31 were originally filed. As the result of a restriction requirement, claims 17-26 and 30 were withdrawn from consideration. Subsequently, claims 7-9, 12, 17-26, and 30 have been canceled. Upon entry of the present amendment, claim 1 is amended to replace the word "heterologous" with "non-*Mycobacterium tuberculosis*." Support for this amendment can be found throughout the specification, *e.g.*, on page 5 line 30 to page 6 line 6, where nucleic acids of non-*Mycobacterium tuberculosis* origins (such as WT1 and mammaglobin) are recited. The same substitution is also made to claims 2, 3, 6, 10, 11, 13, and 27. Claims 1 and 27 are further amended to recite SEQ ID NO:4, 17, or 18, which finds support in claims 10, 11, and 13 as originally filed.

New claims 32-38 are added. New claims 32 and 34 recite a Ra12 polynucleotide sequence of SEQ ID NO:3, which is supported by, *e.g.*, page 4 line 34 to page 5 line 3, as well as claims 1 and 27 prior to the instant amendment. New claims 33 and 35 recite a eukaryotic fusion partner with a Ra12 polynucleotide or polypeptide, which is supported by, *e.g.*, page 5 lines 30-31. New claims 36, 37, and 38 recite a Ra12 polypeptide consisting of SEQ ID NO:4, SEQ ID NO:17, and SEQ ID NO:18, respectively, support for which can be found in, *e.g.*, original claims 10, 11, and 13.

No new matter is introduced by the present amendment.

**II. Information Disclosure Statement**

The Examiner stated that the IDS filed in August, 2002, was incomplete for containing no legible copies of the cited international patent applications (references AN to AR). Applicants note that these references appear to have been considered by the Examiner on August 14, 2002 (see Exhibit A). To expedite prosecution, however, Applicants have submitted copies of these references with this communication.

### III. Claim Rejections

#### A. 35 U.S.C. §102

Claims 1-3, 5, 10, 13-16, 27-29, and 31 were rejected under 35 U.S.C. §102(e) as allegedly anticipated by Skeiky et al. (U.S. Patent No. 6,544,522). Applicants respectfully traverse these rejections in light of the present amendment.

In order to anticipate a claim, a prior art reference must provide or suggest all elements of the claim. MPEP § 2131. As amended, the currently pending claims are drawn to a recombinant nucleic acid molecule comprising a Ra12 *Mycobacterium tuberculosis* polynucleotide sequence encoding SEQ ID NO:4, 17, or 18 and a non-*Mycobacterium tuberculosis* polynucleotide sequence. In contrast, the Skeiky reference discloses fusion proteins comprising two or more *Mycobacterium tuberculosis* antigens. Thus, the present application and Skeiky et al. disclose two patentably distinct inventions, and the latter does not anticipate the pending claims. As such, Applicants submit that the anticipation rejection is improper and respectfully request that the rejection be withdrawn.

#### B. 35 U.S.C. §103

Claims 1-6, 10, 13-16, 27-29, and 31 were also rejected under 35 U.S.C. §103(a) for alleged obviousness over Reed et al. (WO 9709428) in view of Skeiky et al. Applicants respectfully traverse the rejection.

First of all, Applicants note that Skeiky et al. is not available as a prior art reference to support a 103 rejection. 35 U.S.C. §103(c) states,

Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

The Reed reference, the Skeiky reference, and the present application are all assigned to the same entity: Corixa Corporation. At the time the inventions disclosed by the cited references and the present invention were made, the inventors were under the obligation to

assign all patent rights to Corixa. The Examiner cited the Skeiky reference as a 102(e) reference. According 35 U.S.C. §103(c), however, this reference cannot be used to form the basis of a 103 rejection. As such, Applicants contend that the obviousness rejection based on the Reed and Skeiky references is improper and request it withdrawal.

Secondly, even if the Skeiky reference were available as a prior art reference to support a 103 rejection, Applicants contend that the rejection would be improper, especially in light of the claim amendment.

To find a claim obvious over the combination of several reference, three requirements must be met: first, all elements of the claim must be present in the references or suggested by the references; second, the references must provide a motivation or suggestion to combine the elements; and third, there must exist a reasonable expectation of success in combining the elements. MPEP §2143.

As stated above, the amended claims are drawn to a recombinant nucleic acid molecule comprising a Ra12 *Mycobacterium tuberculosis* polynucleotide sequence encoding SEQ ID NO:4, 17, or 18 and a non-*Mycobacterium tuberculosis* polynucleotide sequence. The Skeiky reference discloses fusion proteins comprising two or more *Mycobacterium tuberculosis* antigens. The Reed reference also relates to *M. tuberculosis* antigens and fusion proteins comprising at least two *M. tuberculosis* peptide antigens. The present invention is patentably distinct from the teaching of the Skeiky reference or the Reed reference. Thus, the pending claims are not obvious in view of the Skeiky and Reed references.

In summary, Applicants do not believe that obviousness rejection based on Reed et al. and Skeiky et al. is appropriate and therefore respectfully request the withdrawal of this rejection.

### CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

Appl. No. 09/684,215  
Amdt. dated August 5, 2003  
Reply to Office Action of April 17, 2003

PATENT

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Annette S. Parent". The signature is fluid and cursive, with the first name being the most prominent.

Annette S. Parent  
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Attachments: Exhibit A (copy of IDS signed off by the Examiner; copies of references AN-AR)  
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